



1

SEQUENCE LISTING

<110> DUCOMMUN, BERNARD
MONSARRAT, BERNARD
PRIGENT, CLAUDE

<120> NOVEL PHOSPHORYLATED SEQUENCES OF CDC25B PHOSPHATASE,
ANTIBODIES DIRECTED AGAINST THESE SEQUENCES AS WELL AS
THEIR USE

<130> 0508-1151

<140> 10/560,237
<141> 2005-12-12

<150> PCT/FR04/001416
<151> 2004-06-08

<150> FR 0307095
<151> 2003-06-12

<160> 11

<170> PatentIn Ver. 3.3

<210> 1
<211> 19
<212> PRT
<213> Homo sapiens

<220>
<221> MOD_RES
<222> (10)
<223> PHOSPHORYLATION

<400> 1
Thr Pro Val Gln Asn Lys Arg Arg Arg Ser Val Thr Pro Pro Glu Glu
1 5 10 15
Gln Gln Glu

<210> 2
<211> 14
<212> PRT
<213> Homo sapiens

<220>
<221> MOD_RES
<222> (7)
<223> PHOSPHORYLATION

<400> 2
Gln Asn Lys Arg Arg Arg Ser Val Thr Pro Pro Glu Glu Gln
1 5 10

<210> 3
<211> 566
<212> PRT
<213> Homo sapiens

<220>
<221> MOD_RES
<222> (339)
<223> PHOSPHORYLATION

<400> 3
Met Glu Val Pro Gln Pro Glu Pro Ala Pro Gly Ser Ala Leu Ser Pro
1 5 10 15
Ala Gly Val Cys Gly Gly Ala Gln Arg Pro Gly His Leu Pro Gly Leu
20 25 30
Leu Leu Gly Ser His Gly Leu Leu Gly Ser Pro Val Arg Ala Ala Ala
35 40 45
Ser Ser Pro Val Thr Thr Leu Thr Gln Thr Met His Asp Leu Ala Gly
50 55 60
Leu Gly Ser Arg Ser Arg Leu Thr His Leu Ser Leu Ser Arg Arg Ala
65 70 75 80
Ser Glu Ser Ser Leu Ser Ser Glu Ser Ser Glu Ser Ser Asp Ala Gly
85 90 95
Leu Cys Met Asp Ser Pro Ser Pro Met Asp Pro His Met Ala Glu Gln
100 105 110
Thr Phe Glu Gln Ala Ile Gln Ala Ala Ser Arg Ile Ile Arg Asn Glu
115 120 125
Gln Phe Ala Ile Arg Arg Phe Gln Ser Met Pro Val Arg Leu Leu Gly
130 135 140
His Ser Pro Val Leu Arg Asn Ile Thr Asn Ser Gln Ala Pro Asp Gly
145 150 155 160
Arg Arg Lys Ser Glu Ala Gly Ser Gly Ala Ala Ser Ser Ser Gly Glu
165 170 175
Asp Lys Glu Asn Asp Gly Phe Val Phe Lys Met Pro Trp Lys Pro Thr
180 185 190
His Pro Ser Ser Thr His Ala Leu Ala Glu Trp Ala Ser Arg Arg Glu
195 200 205
Ala Phe Ala Gln Arg Pro Ser Ser Ala Pro Asp Leu Met Cys Leu Ser
210 215 220
Pro Asp Arg Lys Met Glu Val Glu Glu Leu Ser Pro Leu Ala Leu Gly
225 230 235 240
Arg Phe Ser Leu Thr Pro Ala Glu Gly Asp Thr Glu Glu Asp Asp Gly
245 250 255

Phe Val Asp Ile Leu Glu Ser Asp Leu Lys Asp Asp Asp Ala Val Pro
 260 265 270
 Pro Gly Met Glu Ser Leu Ile Ser Ala Pro Leu Val Lys Thr Leu Glu
 275 280 285
 Lys Glu Glu Glu Lys Asp Leu Val Met Tyr Ser Lys Cys Gln Arg Leu
 290 295 300
 Phe Arg Ser Pro Ser Met Pro Cys Ser Val Ile Arg Pro Ile Leu Lys
 305 310 315 320
 Arg Leu Glu Arg Pro Gln Asp Arg Asp Thr Pro Val Gln Asn Lys Arg
 325 330 335
 Arg Arg Ser Val Thr Pro Pro Glu Glu Gln Gln Glu Ala Glu Glu Pro
 340 345 350
 Lys Ala Arg Val Leu Arg Ser Lys Ser Leu Cys His Asp Glu Ile Glu
 355 360 365
 Asn Leu Leu Asp Ser Asp His Arg Glu Leu Ile Gly Asp Tyr Ser Lys
 370 375 380
 Ala Phe Leu Leu Gln Thr Val Asp Gly Lys His Gln Asp Leu Lys Tyr
 385 390 395 400
 Ile Ser Pro Glu Thr Met Val Ala Leu Leu Thr Gly Lys Phe Ser Asn
 405 410 415
 Ile Val Asp Lys Phe Val Ile Val Asp Cys Arg Tyr Pro Tyr Glu Tyr
 420 425 430
 Glu Gly Gly His Ile Lys Thr Ala Val Asn Leu Pro Leu Glu Arg Asp
 435 440 445
 Ala Glu Ser Phe Leu Leu Lys Ser Pro Ile Ala Pro Cys Ser Leu Asp
 450 455 460
 Lys Arg Val Ile Leu Ile Phe His Cys Glu Phe Ser Ser Glu Arg Gly
 465 470 475 480
 Pro Arg Met Cys Arg Phe Ile Arg Glu Arg Asp Arg Ala Val Asn Asp
 485 490 495
 Tyr Pro Ser Leu Tyr Tyr Pro Glu Met Tyr Ile Leu Lys Gly Gly Tyr
 500 505 510
 Lys Glu Phe Phe Pro Gln His Pro Asn Phe Cys Glu Pro Gln Asp Tyr
 515 520 525
 Arg Pro Met Asn His Glu Ala Phe Lys Asp Glu Leu Lys Thr Phe Arg
 530 535 540
 Leu Lys Thr Arg Ser Trp Ala Gly Glu Arg Ser Arg Arg Glu Leu Cys
 545 550 555 560

Ser Arg Leu Gln Asp Gln
565

<210> 4
<211> 539
<212> PRT
<213> Homo sapiens

<220>
<221> MOD_RES
<222> (312)
<223> PHOSPHORYLATION

<400> 4
Met Glu Val Pro Gln Pro Glu Pro Ala Pro Gly Ser Ala Leu Ser Pro
1 5 10 15

Ala Gly Val Cys Gly Gly Ala Gln Arg Pro Gly His Leu Pro Gly Leu
20 25 30

Leu Leu Gly Ser His Gly Leu Leu Gly Ser Pro Val Arg Ala Ala Ala
35 40 45

Ser Ser Pro Val Thr Thr Leu Thr Gln Thr Met His Asp Leu Ala Gly
50 55 60

Leu Gly Ser Glu Thr Pro Lys Ser Gln Val Gly Thr Leu Leu Phe Arg
65 70 75 80

Ser Arg Ser Arg Leu Thr His Leu Ser Leu Ser Arg Arg Ala Ser Glu
85 90 95

Ser Ser Leu Ser Ser Glu Ser Ser Glu Ser Ser Asp Ala Gly Leu Cys
100 105 110

Met Asp Ser Pro Ser Pro Met Asp Pro His Met Ala Glu Gln Thr Phe
115 120 125

Glu Gln Ala Ile Gln Ala Ala Ser Arg Ile Ile Arg Asn Glu Gln Phe
130 135 140

Ala Ile Arg Arg Phe Gln Ser Met Pro Asp Gly Phe Val Phe Lys Met
145 150 155 160

Pro Trp Lys Pro Thr His Pro Ser Ser Thr His Ala Leu Ala Glu Trp
165 170 175

Ala Ser Arg Arg Glu Ala Phe Ala Gln Arg Pro Ser Ser Ala Pro Asp
180 185 190

Leu Met Cys Leu Ser Pro Asp Arg Lys Met Glu Val Glu Glu Leu Ser
195 200 205

Pro Leu Ala Leu Gly Arg Phe Ser Leu Thr Pro Ala Glu Gly Asp Thr
210 215 220

Glu Glu Asp Asp Gly Phe Val Asp Ile Leu Glu Ser Asp Leu Lys Asp
 225 230 235 240

Asp Asp Ala Val Pro Pro Gly Met Glu Ser Leu Ile Ser Ala Pro Leu
 245 250 255

Val Lys Thr Leu Glu Lys Glu Glu Lys Asp Leu Val Met Tyr Ser
 260 265 270

Lys Cys Gln Arg Leu Phe Arg Ser Pro Ser Met Pro Cys Ser Val Ile
 275 280 285

Arg Pro Ile Leu Lys Arg Leu Glu Arg Pro Gln Asp Arg Asp Thr Pro
 290 295 300

Val Gln Asn Lys Arg Arg Ser Val Thr Pro Pro Glu Glu Gln Gln
 305 310 315 320

Glu Ala Glu Glu Pro Lys Ala Arg Val Leu Arg Ser Lys Ser Leu Cys
 325 330 335

His Asp Glu Ile Glu Asn Leu Leu Asp Ser Asp His Arg Glu Leu Ile
 340 345 350

Gly Asp Tyr Ser Lys Ala Phe Leu Leu Gln Thr Val Asp Gly Lys His
 355 360 365

Gln Asp Leu Lys Tyr Ile Ser Pro Glu Thr Met Val Ala Leu Leu Thr
 370 375 380

Gly Lys Phe Ser Asn Ile Val Asp Lys Phe Val Ile Val Asp Cys Arg
 385 390 395 400

Tyr Pro Tyr Glu Tyr Glu Gly His Ile Lys Thr Ala Val Asn Leu
 405 410 415

Pro Leu Glu Arg Asp Ala Glu Ser Phe Leu Leu Lys Ser Pro Ile Ala
 420 425 430

Pro Cys Ser Leu Asp Lys Arg Val Ile Leu Ile Phe His Cys Glu Phe
 435 440 445

Ser Ser Glu Arg Gly Pro Arg Met Cys Arg Phe Ile Arg Glu Arg Asp
 450 455 460

Arg Ala Val Asn Asp Tyr Pro Ser Leu Tyr Tyr Pro Glu Met Tyr Ile
 465 470 475 480

Leu Lys Gly Gly Tyr Lys Glu Phe Phe Pro Gln His Pro Asn Phe Cys
 485 490 495

Glu Pro Gln Asp Tyr Arg Pro Met Asn His Glu Ala Phe Lys Asp Glu
 500 505 510

Leu Lys Thr Phe Arg Leu Lys Thr Arg Ser Trp Ala Gly Glu Arg Ser
 515 520 525

Arg Arg Glu Leu Cys Ser Arg Leu Gln Asp Gln
 530 535

<210> 5
 <211> 580
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MOD_RES
 <222> (353)
 <223> PHOSPHORYLATION

<400> 5
 Met Glu Val Pro Gln Pro Glu Pro Ala Pro Gly Ser Ala Leu Ser Pro
 1 5 10 15
 Ala Gly Val Cys Gly Gly Ala Gln Arg Pro Gly His Leu Pro Gly Leu
 20 25 30
 Leu Leu Gly Ser His Gly Leu Leu Gly Ser Pro Val Arg Ala Ala Ala
 35 40 45
 Ser Ser Pro Val Thr Thr Leu Thr Gln Thr Met His Asp Leu Ala Gly
 50 55 60
 Leu Gly Ser Glu Thr Pro Lys Ser Gln Val Gly Thr Leu Leu Phe Arg
 65 70 75 80
 Ser Arg Ser Arg Leu Thr His Leu Ser Leu Ser Arg Arg Ala Ser Glu
 85 90 95
 Ser Ser Leu Ser Ser Glu Ser Ser Glu Ser Ser Asp Ala Gly Leu Cys
 100 105 110
 Met Asp Ser Pro Ser Pro Met Asp Pro His Met Ala Glu Gln Thr Phe
 115 120 125
 Glu Gln Ala Ile Gln Ala Ala Ser Arg Ile Ile Arg Asn Glu Gln Phe
 130 135 140
 Ala Ile Arg Arg Phe Gln Ser Met Pro Val Arg Leu Leu Gly His Ser
 145 150 155 160
 Pro Val Leu Arg Asn Ile Thr Asn Ser Gln Ala Pro Asp Gly Arg Arg
 165 170 175
 Lys Ser Glu Ala Gly Ser Gly Ala Ala Ser Ser Ser Gly Glu Asp Lys
 180 185 190
 Glu Asn Asp Gly Phe Val Phe Lys Met Pro Trp Lys Pro Thr His Pro
 195 200 205
 Ser Ser Thr His Ala Leu Ala Glu Trp Ala Ser Arg Arg Glu Ala Phe
 210 215 220

Ala Gln Arg Pro Ser Ser Ala Pro Asp Leu Met Cys Leu Ser Pro Asp
 225 230 235 240
 Arg Lys Met Glu Val Glu Glu Leu Ser Pro Leu Ala Leu Gly Arg Phe
 245 250 255
 Ser Leu Thr Pro Ala Glu Gly Asp Thr Glu Glu Asp Asp Gly Phe Val
 260 265 270
 Asp Ile Leu Glu Ser Asp Leu Lys Asp Asp Asp Ala Val Pro Pro Gly
 275 280 285
 Met Glu Ser Leu Ile Ser Ala Pro Leu Val Lys Thr Leu Glu Lys Glu
 290 295 300
 Glu Glu Lys Asp Leu Val Met Tyr Ser Lys Cys Gln Arg Leu Phe Arg
 305 310 315 320
 Ser Pro Ser Met Pro Cys Ser Val Ile Arg Pro Ile Leu Lys Arg Leu
 325 330 335
 Glu Arg Pro Gln Asp Arg Asp Thr Pro Val Gln Asn Lys Arg Arg Arg
 340 345 350
 Ser Val Thr Pro Pro Glu Glu Gln Gln Glu Ala Glu Glu Pro Lys Ala
 355 360 365
 Arg Val Leu Arg Ser Lys Ser Leu Cys His Asp Glu Ile Glu Asn Leu
 370 375 380
 Leu Asp Ser Asp His Arg Glu Leu Ile Gly Asp Tyr Ser Lys Ala Phe
 385 390 395 400
 Leu Leu Gln Thr Val Asp Gly Lys His Gln Asp Leu Lys Tyr Ile Ser
 405 410 415
 Pro Glu Thr Met Val Ala Leu Leu Thr Gly Lys Phe Ser Asn Ile Val
 420 425 430
 Asp Lys Phe Val Ile Val Asp Cys Arg Tyr Pro Tyr Glu Tyr Glu Gly
 435 440 445
 Gly His Ile Lys Thr Ala Val Asn Leu Pro Leu Glu Arg Asp Ala Glu
 450 455 460
 Ser Phe Leu Leu Lys Ser Pro Ile Ala Pro Cys Ser Leu Asp Lys Arg
 465 470 475 480
 Val Ile Leu Ile Phe His Cys Glu Phe Ser Ser Glu Arg Gly Pro Arg
 485 490 495
 Met Cys Arg Phe Ile Arg Glu Arg Asp Arg Ala Val Asn Asp Tyr Pro
 500 505 510
 Ser Leu Tyr Tyr Pro Glu Met Tyr Ile Leu Lys Gly Gly Tyr Lys Glu
 515 520 525

Phe Phe Pro Gln His Pro Asn Phe Cys Glu Pro Gln Asp Tyr Arg Pro
 530 535 540
 Met Asn His Glu Ala Phe Lys Asp Glu Leu Lys Thr Phe Arg Leu Lys
 545 550 555 560
 Thr Arg Ser Trp Ala Gly Glu Arg Ser Arg Arg Glu Leu Cys Ser Arg
 565 570 575
 Leu Gln Asp Gln
 580

<210> 6
 <211> 601
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MOD_RES
 <222> (374)
 <223> PHOSPHORYLATION

<400> 6
 Met Glu Val Pro Gln Pro Glu Pro Ala Pro Gly Ser Ala Leu Ser Pro
 1 5 10 15
 Ala Gly Val Cys Gly Gly Ala Gln Arg Pro Gly His Leu Pro Gly Leu
 20 25 30
 Leu Leu Gly Ser His Gly Leu Leu Gly Ser Pro Val Arg Ala Ala Ala
 35 40 45
 Ser Ser Pro Val Thr Thr Leu Thr Gln Thr Met His Asp Leu Ala Gly
 50 55 60
 Leu Gly Ser Arg Ser Arg Leu Thr His Leu Ser Leu Ser Arg Arg Ala
 65 70 75 80
 Ser Glu Ser Ser Leu Ser Ser Glu Ser Ser Glu Ser Ser Asp Ala Gly
 85 90 95
 Leu Cys Met Asp Ser Pro Ser Pro Met Asp Pro His Met Ala Glu Gln
 100 105 110
 Thr Phe Glu Gln Ala Ile Gln Ala Ala Ser Arg Ile Ile Arg Asn Glu
 115 120 125
 Gln Phe Ala Ile Arg Arg Phe Gln Ser Met Pro Val Arg Leu Leu Gly
 130 135 140
 His Ser Pro Val Leu Arg Asn Ile Thr Asn Ser Gln Ala Pro Asp Gly
 145 150 155 160
 Arg Arg Lys Ser Glu Ala Gly Ser Gly Ala Ala Ser Ser Ser Gly Glu
 165 170 175

Asp Lys Glu Asn Val Arg Phe Trp Lys Ala Gly Val Gly Ala Leu Arg
 180 185 190
 Glu Glu Glu Gly Ala Cys Trp Gly Gly Ser Leu Ala Cys Glu Asp Pro
 195 200 205
 Pro Leu Pro Ser Trp Leu Gln Asp Gly Phe Val Phe Lys Met Pro Trp
 210 215 220
 Lys Pro Thr His Pro Ser Ser Thr His Ala Leu Ala Glu Trp Ala Ser
 225 230 235 240
 Arg Arg Glu Ala Phe Ala Gln Arg Pro Ser Ser Ala Pro Asp Leu Met
 245 250 255
 Cys Leu Ser Pro Asp Arg Lys Met Glu Val Glu Glu Leu Ser Pro Leu
 260 265 270
 Ala Leu Gly Arg Phe Ser Leu Thr Pro Ala Glu Gly Asp Thr Glu Glu
 275 280 285
 Asp Asp Gly Phe Val Asp Ile Leu Glu Ser Asp Leu Lys Asp Asp Asp
 290 295 300
 Ala Val Pro Pro Gly Met Glu Ser Leu Ile Ser Ala Pro Leu Val Lys
 305 310 315 320
 Thr Leu Glu Lys Glu Glu Lys Asp Leu Val Met Tyr Ser Lys Cys
 325 330 335
 Gln Arg Leu Phe Arg Ser Pro Ser Met Pro Cys Ser Val Ile Arg Pro
 340 345 350
 Ile Leu Lys Arg Leu Glu Arg Pro Gln Asp Arg Asp Thr Pro Val Gln
 355 360 365
 Asn Lys Arg Arg Arg Ser Val Thr Pro Pro Glu Glu Gln Gln Glu Ala
 370 375 380
 Glu Glu Pro Lys Ala Arg Val Leu Arg Ser Lys Ser Leu Cys His Asp
 385 390 395 400
 Glu Ile Glu Asn Leu Leu Asp Ser Asp His Arg Glu Leu Ile Gly Asp
 405 410 415
 Tyr Ser Lys Ala Phe Leu Leu Gln Thr Val Asp Gly Lys His Gln Asp
 420 425 430
 Leu Lys Tyr Ile Ser Pro Glu Thr Met Val Ala Leu Leu Thr Gly Lys
 435 440 445
 Phe Ser Asn Ile Val Asp Lys Phe Val Ile Val Asp Cys Arg Tyr Pro
 450 455 460
 Tyr Glu Tyr Glu Gly Gly His Ile Lys Thr Ala Val Asn Leu Pro Leu
 465 470 475 480

Glu Arg Asp Ala Glu Ser Phe Leu Leu Lys Ser Pro Ile Ala Pro Cys
 485 490 495

 Ser Leu Asp Lys Arg Val Ile Leu Ile Phe His Cys Glu Phe Ser Ser
 500 505 510

 Glu Arg Gly Pro Arg Met Cys Arg Phe Ile Arg Glu Arg Asp Arg Ala
 515 520 525

 Val Asn Asp Tyr Pro Ser Leu Tyr Tyr Pro Glu Met Tyr Ile Leu Lys
 530 535 540

 Gly Gly Tyr Lys Glu Phe Phe Pro Gln His Pro Asn Phe Cys Glu Pro
 545 550 555 560

 Gln Asp Tyr Arg Pro Met Asn His Glu Ala Phe Lys Asp Glu Leu Lys
 565 570 575

 Thr Phe Arg Leu Lys Thr Arg Ser Trp Ala Gly Glu Arg Ser Arg Arg
 580 585 590

 Glu Leu Cys Ser Arg Leu Gln Asp Gln
 595 600

<210> 7
 <211> 588
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MOD_RES
 <222> (361)
 <223> PHOSPHORYLATION

<400> 7
 Met Glu Val Pro Gln Pro Glu Pro Ala Pro Gly Ser Ala Leu Ser Pro
 1 5 10 15

 Ala Gly Val Cys Gly Gly Ala Gln Arg Pro Gly His Leu Pro Gly Leu
 20 25 30

 Leu Leu Gly Ser His Gly Leu Leu Gly Ser Pro Val Arg Ala Ala Ala
 35 40 45

 Ser Ser Pro Val Thr Thr Leu Thr Gln Thr Met His Asp Leu Ala Gly
 50 55 60

 Leu Gly Ser Glu Thr Pro Lys Ser Gln Val Gly Thr Leu Leu Phe Arg
 65 70 75 80

 Ser Arg Ser Arg Leu Thr His Leu Ser Leu Ser Arg Arg Ala Ser Glu
 85 90 95

 Ser Ser Leu Ser Ser Glu Ser Ser Glu Ser Ser Asp Ala Gly Leu Cys
 100 105 110

Met Asp Ser Pro Ser Pro Met Asp Pro His Met Ala Glu Gln Thr Phe
 115 120 125

Glu Gln Ala Ile Gln Ala Ala Ser Arg Ile Ile Arg Asn Glu Gln Phe
 130 135 140

Ala Ile Arg Arg Phe Gln Ser Met Pro Val Arg Leu Leu Gly His Ser
 145 150 155 160

Pro Val Leu Arg Asn Ile Thr Asn Ser Gln Ala Pro Asp Gly Arg Arg
 165 170 175

Lys Ser Glu Ala Gly Ser Gly Ala Ala Ser Ser Ser Gly Glu Asp Lys
 180 185 190

Glu Asn Val Arg Phe Trp Lys Ala Gly Val Gly Ala Leu Arg Glu Glu
 195 200 205

Glu Gly Ala Cys Trp Gly Gly Ser Leu Ala Cys Glu Asp Pro Pro Leu
 210 215 220

Pro Ser Trp Leu Gln Asp Gly Phe Val Phe Lys Met Pro Trp Lys Pro
 225 230 235 240

Thr His Pro Ser Ser Thr His Ala Leu Ala Glu Trp Ala Ser Arg Arg
 245 250 255

Glu Ala Phe Ala Gln Arg Pro Ser Ser Ala Pro Asp Leu Met Cys Leu
 260 265 270

Ser Pro Asp Arg Lys Met Glu Val Glu Glu Leu Ser Pro Leu Ala Leu
 275 280 285

Gly Arg Phe Ser Leu Thr Pro Ala Glu Gly Asp Thr Glu Glu Asp Asp
 290 295 300

Gly Phe Val Asp Ile Leu Glu Ser Asp Leu Lys Asp Leu Val Met Tyr
 305 310 315 320

Ser Lys Cys Gln Arg Leu Phe Arg Ser Pro Ser Met Pro Cys Ser Val
 325 330 335

Ile Arg Pro Ile Leu Lys Arg Leu Glu Arg Pro Gln Asp Arg Asp Thr
 340 345 350

Pro Val Gln Asn Lys Arg Arg Arg Ser Val Thr Pro Pro Glu Glu Gln
 355 360 365

Gln Glu Ala Glu Glu Pro Lys Ala Arg Val Leu Arg Ser Lys Ser Leu
 370 375 380

Cys His Asp Glu Ile Glu Asn Leu Leu Asp Ser Asp His Arg Glu Leu
 385 390 395 400

Ile Gly Asp Tyr Ser Lys Ala Phe Leu Leu Gln Thr Val Asp Gly Lys
 405 410 415

His Gln Asp Leu Lys Tyr Ile Ser Pro Glu Thr Met Val Ala Leu Leu
 420 425 430

Thr Gly Lys Phe Ser Asn Ile Val Asp Lys Phe Val Ile Val Asp Cys
 435 440 445

Arg Tyr Pro Tyr Glu Tyr Glu Gly Gly His Ile Lys Thr Ala Val Asn
 450 455 460

Leu Pro Leu Glu Arg Asp Ala Glu Ser Phe Leu Leu Lys Ser Pro Ile
 465 470 475 480

Ala Pro Cys Ser Leu Asp Lys Arg Val Ile Leu Ile Phe His Cys Glu
 485 490 495

Phe Ser Ser Glu Arg Gly Pro Arg Met Cys Arg Phe Ile Arg Glu Arg
 500 505 510

Asp Arg Ala Val Asn Asp Tyr Pro Ser Leu Tyr Tyr Pro Glu Met Tyr
 515 520 525

Ile Leu Lys Gly Gly Tyr Lys Glu Phe Phe Pro Gln His Pro Asn Phe
 530 535 540

Cys Glu Pro Gln Asp Tyr Arg Pro Met Asn His Glu Ala Phe Lys Asp
 545 550 555 560

Glu Leu Lys Thr Phe Arg Leu Lys Thr Arg Ser Trp Ala Gly Glu Arg
 565 570 575

Ser Arg Arg Glu Leu Cys Ser Arg Leu Gln Asp Gln
 580 585

<210> 8
 <211> 15
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MOD_RES
 <222> (1)
 <223> PHOSPHORYLATION

<400> 8
 Ser Val Thr Pro Pro Glu Glu Gln Gln Glu Ala Glu Glu Pro Lys
 1 5 10 15

<210> 9
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 9
 Gln Asn Lys Arg Arg Arg Ser Val Thr Pro Pro Glu Glu Gln
 1 5 10

<210> 10
<211> 13
<212> PRT
<213> Homo sapiens

<220>
<221> MOD_RES
<222> (7)
<223> PHOSPHORYLATION

<400> 10
Met Glu Val Glu Glu Leu Ser Pro Leu Ala Leu Gly Arg
1 5 10

<210> 11
<211> 15
<212> PRT
<213> Homo sapiens

<400> 11
Ser Val Thr Pro Pro Glu Glu Gln Gln Glu Ala Glu Glu Pro Lys
1 5 10 15